REMARKS

Reconsideration of the application is requested in view of the following remarks.

Claim 13 which was objected to for the informality regarding "the image data" has been corrected to depend from claim 12, instead of claim 8, as claim 12 provides antecedent basis for the image data.

Regarding the objection to the drawings, in particular the arrows missing from the circuitry 600, 710, 718, etc. in Fig. 7, these arrows have been added as can be seen in the sheet of the formal drawing for Fig. 7, which the Applicant has submitted already to the Office on June 19, 2002. A copy of all of the formal drawings is again provided herein. Accordingly, the objection to the drawings is believed to be overcome.

Finally, several obvious mistakes were found while reviewing the specification, and these are also corrected herein.

In view of the foregoing, all objections mentioned in the Office Action have been addressed and overcome, such that the application is believed to be in condition for allowance. A Notice of Allowance is respectfully requested to issue at the earliest possible date.

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Respectfully submitted,

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Dated: July 22, 2002

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on July 22, 2002.

Jean Svoboda

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATIONS

The paragraph beginning on page 2, line 12, has been amended as follows:

Saturation can be avoided by controlling an electronic shutter circuit in each photocell to limit the total energy detected by the photocell. Some cells provide a signal that represents the instantaneous detected energy and is controlled by the electronic shutter. The signal is integrated over a time interval known as the exposure or integration interval to obtain the total energy. Saturation is avoided in such cells by reducing the integration interval and by controlling the electronic shutter to prevent the signal from reaching a saturation level.

The paragraph beginning on page 6, line 20, has been amended as follows:

The sensor cells in an array (as part of a sensor IC) may be monitored for saturation on a per column or row basis. The integration intervals may also be controlled on a per column or per row basis. If the sensor array is exposed to a scene having strongly lit areas, the photocells in a column or row detecting those areas will tend to saturate before the rest of the scene has been adequately detected. The embodiments of the invention allow the row or column receiving strong light to be identified, its saturation to be prevented by ending integration for the affected row or column, and simultaneously continuing to integrate other rows or columns that received low light. This allows a more accurate image of the scene, closer to one obtainable from a perfect imaging system, to be captured in which both low and strong light areas are represented free of saturation effects and using a single exposure.

The paragraph beginning on page 7, line 17, has been amended as follows:

Figure 1 illustrates ~~the first~~an embodiment of the invention as a sensor 100. The figure illustrates the photocell in terms of a circuit schematic featuring a BJT Q1

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that operates as a photodetector. In a particular embodiment, the photocell 100 is implemented using a standard logic complimentary MOS (CMOS) fabrication process in which Q_1 is a PNP parasitic device built using a single n-well with highly doped p+ regions (such as implants) that may correspond to an unrealized MOSFET extending over portions of the n-well 204. Thus, Q_1 is realizable with a conventional CMOS process rather than a more expensive Bipolar-CMOS (Bi-CMOS). The p+ regions 208 and 212 are connected to electrical contacts that form the global emitter (GE) and pixel emitter (PE) contacts shown in **Figure 1**. A top view of Q_1 in this embodiment is illustrated in **Figure 2**, while **Figure 3** shows Q_1, being a parasitic PNP device, by way of cross section. It can be seen that the p-region 304 forms part of the collector of Q_1, the n-well 204 forming part of the base, and the p+ regions 208 and 212 forming the multiple emitters.

IN THE CLAIMS

The claims have been amended as follows:

13. (Amended) The imaging system of claim ~~8~~ 12 further comprising

optical system to receive the incident light to form an image on the image sensor; and

communication interface for transferring the image data to an image processing system separate from the imaging system.